INDUSTRIAL CREDIT DERIVATIVE MATHEMATICAL TRANCHE EVALUATION

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The industry obligations secondary market risk estimation methods are considered in this paper [1].

Credit default swap (CDS) is the complicated construction base. In any credit default case the nominal CDS is paid by the credit protection seller. Our multiparametrical model based on Generalised Hyperbolic Copula with Generalised Hyperbolic margins [2].

It is possible to use several copulas at once to have GH-copula with the margins and tail independence. The new tranche estimation mathematical methods of industrial derivatives taking into account statistically significant parameters, allowing for credit derivatives portofolio are offered for single-name investment risks numerical experiments realization [3].

References

1. *Stikhova O.V.* Industrial Companies Credit Derivatives Mathematical Tranches Risk Estimation Methods And Models. / The Third International Scientific Conference. The Modeling Of Nonlinear Processes And Systems (Mnps-2015). p46-47.

2. *Schetinin E.Yu., Stikhova O.V.* Mathematical Modeling Credit Derivatives Based on Copula Models. / The scientific - practical and information-analytical collection "the Financial analyst: problems and decisions", "the Publishing house the FINANCE and CREDIT", 7(49)-2011, pp.16-25.

3. *Stikhova O.V.* Credit Derivatives Behaviour Mathematical Modeling. /XLII the All-Russia conference on problems of mathematics, computer science, physics and chemistry. Working papers. Section "The Applied theory of probabilities and theoretical informatics.-M: Edited by PFUR, 2009, pp.123-124.